

Abstract

The present invention relates to a low oil cream-like substance, its preparation, the method of manufacturing the substance, and the composition for the taste of ice-cream.

Notes

1. Lipid substances were represented with oil or oil-like.

2. Taste of the liquorice is characterized by sweet and bitter.

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CROSS-REFERENCE

Claims

Claim 1) The manufacturing method of the low oil cream-like substance characterized by adding and agitating a liquorice agent into the mixture of 30% or less of oil, and water.

Claim 2) The manufacturing method of the low oil cream-like substance according to claim 1 which is for enhancement in which a liquorice agent has liquorice productivity.

Claim 3) The manufacturing method of the low oil cream-like substance according to claim 1 or 2 which is that in which a liquorice agent contains the liquorice which has selectivity in the 1st place of hydroxyl, and the 3rd place.

Claim 4) The manufacturing method of the low oil cream-like substance according to claim 1 to 3 with which oil contains, oil's flavoring oil.

Claim 5) The manufacturing method of the low oil cream-like substance according to claim 1 to 4 with which the aqueous solution of 30% or less of oil does not contain an emulsifier.

Detailed Description of the Invention

Note 1)

(Industrial Application) However, this invention relates to the manufacturing method of an extremely stable cream-like substance by low oil. It not only can use in manufacture of cream-like food, such as whipped cream in the food industry field, mousse, margarine, and ice cream, but it is widely used for manufacture of cosmetics, drugs, other chemistries article, etc.

Note 2)

(Development of the Prior Art) In food industry, the needs of developing of low oil and low-calories cream is also growing with diversification of a consumer's eating habits, and improvement in health consciousness in recent years.

(Prior) The flavor of the functionality of this cream and the operation of the opposite character of the stability before a whip have been supported by using vegetable oil, fat, flour and starch and locust bean as an emulsifier with the cream which uses the former, for example, vegetable oil. However -- conventional cream -- an oily feeling and substance -- the content of the fat which gives the taste to oil and fat is usually required fat at least 40% or more, and this has become the high caloric source of energy.

6666] Adhesive, for example by JP S54-32489,8, in order to ensure the stability of emulsion against evaporation, caseinate, gelatin, etc. are used, but those additives cannot say it is a desirable thing from a point of the flavor of a product.

[6667]

Problems; to be solved by the invention; Although the preparation methods of various emulsions and emulsions including above-mentioned illustration have so far been studied substantially, the present condition is that physical properties, stability, and the cream-like substance in low oil if can be satisfied all. All of a sub-class in respect of flavor are not developed. Furthermore, usually additives, such as emulsifier and a stabilizing agent, are indispensable to manufacture of this cream-like substance, these are not used for it, and the cream-like substance which is 10% or less of oil further, and was moreover excellent in flavor and stability is not yet manufactured.

[6668] Therefore, the purpose of this invention is low oil, and not using an emulsifier, a stabilizing agent, a thickener, etc., its ** is also stable over a long period of time, and, moreover, there is no developing the new method of manufacturing a low oil cream-like substance with characteristics, like flavor is good.

[6669]

Solutions for Solving the Problems: This invention was wholly basically completed as a result of research that the purpose should be attained, and an oil content i.e. the manufacturing method of the low oil cream-like substance which are several percent. While it is below the same weight %.

[6670] That is, it is the manufacturing method of an low oil cream-like substance characterized by the following adding, and spraying a liquid agent into the mixture of 10% or less of oil, and water.

[6671] According to this invention, a little salt are added if needed into the mixture of the oil at several percent of oil, and water, fluid as several % of lipase agent can be mixed, and 10 degrees C of cream-like substance can be obtained by a very easy method [say 1 nighting greatly for its unique - several days at room temperature or 10 degrees C particularly], Since an operation of a lipase agent will tell of the effect of breaking it is not required and if processes at high temperature from 50 degrees C addition of the lipase agent exceeding several percent is not desirable, in addition, the case where a high melting point component is included as oil - case - among, - what is necessary is to boil at 50 degrees C or less after freezing, or add a lipase agent, and just to make it set.

[6672] The obtained cream-like substance is a little of emulsification its fineness is very good, and it is stable for several months in 1 degree C.

[6673] Animal's microorganism, vegetation, or the origin can be used for the lipase agent used by this invention. For example, Rhizopus Dele Mader (Rhizopus delemater), MELKIRI Mal Day (Mycer anches), Alcaligenes Lipase which has activity in the 1st place of glycerides, and the 2nd place by the microorganism origin, such as, for, (Alcaligenes sp.), Aspergillus Niger (A. niger), Candida BIPINORASIL (Candida pinorosa), Geotrichum A though there are lipase of vegetable origin, such as when is called ranchas type lipase of microorganism origin, such as a cloudy skin (*Candida* *lancearia*), a soybean, U.S. bean, and a coffee seed veal, pancreatic lipase of an animal, etc., it is convenient to usually use these experimental items. The fixed lipase obtained as fat lipase agent by conventional methods, such as oilseed, an adsorption process, etc. is a weaker binding method, and spraying agent, etc. (lipase / itself) The microorganism with the capability to produce this lipase furthermore, such as yeast, yeast, and bacteria, may be used, and a cream-like substance can be produced similarly.

(1971) When immobilizing a cream-like emulsion in this invention, addition of an emulsifier, a stabilizing agent, & thickener, etc. is unnecessary, and good as a raw material only at times of denatured casein, gel, and a lipase agent. In addition, in order to acquire the firmness of a butter cream-like emulsion, addition of the chloride of a metal ion equivalent to glyceride / such as 0.1 to 5% of salts, for example, calcium chloride, and sodium carbonate, / or trisodium, carbonates, nitrate, sulfate, etc. is effective (1971 a, 1974).

[0013] By the above-mentioned means, the gas-tight-shut substance of the visibility oil can be 30% or less of oil and fluorine can be manufactured without adding a stabilizing agent, a thickener, an emulsifier, etc.

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2000-01

is at 1% (w/v) to the mixture which consists of 100ml of 96% ethanol water, and 10g of palm oil. Add 2ml of ligase mixture in Note 1 (NORI/DSKU/KJ Japan, trade name "PARATAZU 100G") of the Bio-Haze (Mucor sp.) culture, and set it to a room temperature. Polymerization is over for 4 hours and it is 50kgpa. It is noted. As a result, this solution was stable for becoming the shape of good cream of tortoise; and oil and coagulate are dissociating for three months at 8 degrees C.

[1951] To the mixture which consists of 100ml of work-example 7 diluent water, and 25g of reagent 3d, 10 ml of hydrochloric acid was added. Then 100g of calcium carbonate was added. After stirring, 100g of sodium carbonate was added. Finally, 100g of magnesium carbonate was added. The mixture was stirred for 10 minutes. The pH of the mixture was measured to be 7.0. The mixture was then filtered through a filter paper. The filtrate was collected and stored in a glass bottle. This solution was used as a work-example 1 at 37 degrees C. Firmness and the shape of the obtained ceramic-like substance were good, and it was stable for three months at 3 degrees C.

10 ml of 0.1M zinc chloride and sodium chloride are added in the mixture which contains 1.0 ml of water-soluble 5% agar, and 100 mg 1% each, 1 ml of lysate (positive) I made by HODDIE's reagent, 1 ml aqueous solutions of 75% potassium oxalate are added, and it is 400 rpm at 40 degrees C. It is agitated by a shaker for 1.5 hours. The obtained precipitate substance was soluble the three weights in 4 degrees C after the above treatment with example.

1912] it is hence pronounced *leptina* MELKORU in the literature which consists of 100ml of whole example 100ml of water, 10g oil neemseed oil, and 1g of yunnan extract. They are 100gms of i platinum-
100gms *LEPTINA* *SHIASHING* *RECHENSLI* (*Micromeria coronellaeoides* (L.) Voss 1909) is soaked for 5 days.

As a result, the cream-like substance which was excellent in firmness, was able to be obtained.
0018] The vegetable oil (oleostearin) alcohol water along which 1L of water+sample 5 (hydroperoxide
suspension) with the conventional method separately, not longer than 5 minutes. Then make
of the *Candida Sphaerinctrica* (Candida cylindracea) eggshell Trade name "Lacee Off" total of 0.5g/
ml aqueous solution it used and agitated like the work example 1. Form was held for five months at 4
degree C, and separation of the component was not recognized, but the cream-like substance obtained by
this was stable.

0019] There are 40 degrees C and 200rpm, mixing for 10min work+sample 6 (work example 1 using the
emulsifier of a few drops). It agitated for 5 hours. Then, of the obtained cream-like substance removed
the whipped smooth beating of cream, and was no yellow in flavoring and it served it for three months at 4
degrees C, it was, stable.

0020] Add 0.2ml of lyease (made in Novo NORDISK RU System, trade name "PAPAYAZE 100U") ...
and K2CO3 (NaOH number) enough to the mixed solution which consists of 100ml of work
example 7 demineralized water, and protein 2kg, and set at 40 degrees C, it agitated by the same method as
a work example 1, and cold cream was obtained. The obtained pale cream was well applied to skin, and
was good cold cream also with sufficient stability.

0021]

Effect of the invention: The result cream-like substance excellent in the sensory properties of raw oil
whose oil content is 30% or less can be obtained by simple operation, without using additives, such as a
few emulsifier, a stabilizing agent, and a thickness, if the technique of this invention is used. By this,
manufacture of this-and-oils creamy food, such as whipped cream and mayonnaise with a low calorie,
and non-greasy, or non-oily, thing, etc. is attained.

Translation done.]